



RESEARCH, DEVELOPMENT and TECHNOLOGY TRANSFER QUARTERLY PROGRESS REPORT (QPR)

Wisconsin Department of Transportation (WisDOT)
DT1241 5/2014

INSTRUCTIONS:

Research principal investigators and/or project managers should complete a quarterly progress report (QPR) for each calendar quarter during which the projects are active.

WisDOT Research Program Category <input type="checkbox"/> Policy Research <input checked="" type="checkbox"/> Wisconsin Highway Research Program <input type="checkbox"/> Other: _____		Report Period (enter year and check which quarter) Year: <u>2014</u> <input type="checkbox"/> Quarter 1 (Jan 1 – Mar 31) <input type="checkbox"/> Quarter 3 (Jul 1 – Sep 30) <input type="checkbox"/> Quarter 2 (Apr 1 – Jun 30) <input checked="" type="checkbox"/> Quarter 4 (Oct 1 – Dec 31)	
Project Title Self-Consolidating Concrete for Prestressed Bridge Girders		WisDOT Project ID 0092-15-03	
Principal Investigator Name Junwon Seo	Project Oversight Committee Chair Name Rita Lederle	Project Start Date (m/d/yyyy) 11/17/2014	
(Area Code) Telephone Number 605-688-5427	(Area Code) Telephone Number 608-261-6113	Original End Date (m/d/yyyy) 11/17/2016	
Email Address junwon.seo@sdstate.edu	Email Address rita.lederle@dot.wi.gov	Current End Date (m/d/yyyy) 11/17/2016	

Project Schedule Status (check one)

☒ On Schedule ☐ On Revised Schedule ☐ Ahead of Schedule ☐ Behind Schedule

Project Budget Status

Total Project Budget	Expenditures Current Quarter	Total Expenditures	% Funds Expended	% Work Completed
\$70,000.00	\$0.00	\$0.00	0%	5%

Project Description

SCC has high potential prestressed bridge construction in Wisconsin, but there is a lack of definitive data on its material properties for WisDOT. The primary objective of the work proposed herein is to develop specific mix parameters that a SCC mix must satisfy and its specification for the use of SCC in prestressed girders used on WisDOT bridge projects. To accomplish this objective, this project will test several SCC samples for examining the following characteristics:

- Material Properties
- Time-Dependent Characteristics

This project will not only help in better understanding the material properties of prestressed SCC girders, but will also provide recommendations related to its design and guidance that can be useful for a full-scale implementation on one of the department's bridge projects. This implementation will be coordinated with WisDOT Bureau of Structures and a Precast Girder Producer for the design, implementation, testing, monitoring and documentation.

Progress This Quarter (includes meetings, work plan status, contract status, significant progress, etc.)

- Kick-off meeting was held on November 11th, 2014.
- The brief report comparing the merits of ASTM C157 and C426 for shrinkage tests was submitted to the POC, and the POC agreed that ASTM C157 should be used for this project.
- Literature review (**Task 1**) on SCC material properties and relevant state DOT's practices and specifications has progressed; specifically, a survey was sent to different DOTs requesting information about their practices and specifications on SCC. DOT's have responded our request by completing the survey and providing their practices and specifications. It indicates that some states to which we have sent the survey do not have any previous experience with SCC.
- County material engineers and precasters (**Task 2**) in Wisconsin have been contacted to request information about the available materials and previous research information, but there is no response as of the present date.

Anticipated Work Next Quarter

- Finalize literature review.
- Establish test matrix and send it to the POC for its approval.
- Send a request of materials to the selected precasters in Wisconsin to initiate the SCC mix testing.

Circumstances Affecting Project or Budget

- Delayed responses to be obtained from the DOTs and precasters may happen due to holidays.

Attach / Insert Gantt Chart and Other Project Documentation

Quarterly Progress Report #1 (Oct 1 st - December 31 st)										
	01-oct-14	10-oct-14	20-oct-14	30-oct-14	11-nov-14	20-nov-14	30-nov-14	10-Dec-14	20-Dec-14	30-Dec-14
Kick-off Meeting										
<u>Task 1:</u>	<u>On Schedule</u>									
Literature Review										
Contact DOTs										
Summarize DOT's Responses to Survey										
Establish Test Matrix										
<u>Task 2:</u>	<u>On Schedule</u>									
Contact Precasters in Wisconsin										

(*enter text)

For WisDOT Use Only	
Staff Receiving QPR J. Walejko	Date Received (m/d/yyyy) 12/31/2014
Staff Approving QPR Rita Lederle	Date Approved (m/d/yyyy) 1/12/2015